Cognitive Challenges in Human-Artificial Intelligence Collaboration: Investigating the Path Toward Productive Delegation

Abstract

A consensus is beginning to emerge that the next phase of artificial intelligence (AI) induction in business organizations will require humans to work with AI in a variety of work arrangements. This article explores the issues related to human capabilities to work with AI. A key to working in many work arrangements is the ability to delegate work to entities that can do them most efficiently. Modern AI can do a remarkable job of efficient delegation to humans because it knows what it knows well and what it does not. Humans, on the other hand, are poor judges of their metaknowledge and are not good at delegating knowledge work to AI—this might prove to be a big stumbling block to create work environments where humans and AI work together. Humans have often created machines to serve them. The sentiment is perhaps exemplified by Oscar Wilde's statement that "civilization requires slaves…. Human slavery is wrong, insecure and demoralizing. On mechanical slavery, on the slavery of the machine, the future of the world depends." However, the time has come when humans might switch roles with machines. Our study highlights capabilities that humans need to effectively work with AI and still be in control rather than just being directed.